Sergio F.
Expert Solana Blockchain Engineer

SUMMARY

- Senior Blockchain Engineer with 20+ years in software development and a strong track record in the Solana ecosystem; - Experienced in Rust for Solana smart contract development, with extensive experience building on-chain programs for DeFi, staking, NFT, and messaging platforms; - Skilled in full-stack development: React and TypeScript for front-end dApps, Node.js and Python for backend systems; - Experience with AWS and Google Cloud for scalable cloud applications and infrastructure; - Ability to lead teams and manage projects, including migrating Ethereum products to Solana (Community Gaming); - Skilled in blockchain frameworks and tools: Anchor, CPI, Metaplex, Token-2022; - Strong SQL background with hands-on experience in PostgreSQL, MySQL, and SQLite; - Experienced in system architecture, Linux server administration, and distributed applications; - Notable achievements include leading Solana product delivery for NeuralBond (on-chain messaging) and Palus Finance (staking platform).

TECHNICAL SKILLS

Main Technical Skills	Rust, Solana
Programming Languages	C#, Java, Kotlin, Objective-C, Python, Rust, Swift, TypeScript
AI & Machine Learning	AI
Mobile Frameworks and Libraries	Crashlytics, Metal
Android Libraries and Tools	Kotlin
JavaScript Frameworks	Lodash, Node.js, React
PHP Frameworks	Slim
Databases & Management Systems / ORM	Aurora, PostgreSQL, SQL
Cloud Platforms, Services & Computing	AWS, GCP
Amazon Web Services	AWS Lambda
Azure Cloud Services	Azure Cloud Functions
Industry Domain Experience	Blockchain
Blockchain and Decentralized Software	Anchor, ETH (Ethereum blockchain), Linea, NFT, Smart Contract, Solana

SDK / API and Integrations	API
Methodologies, Paradigms and Patterns	Flows
Operating Systems	Linux, macOS
Platforms	Mobile App
Mail / Network Protocols / Data transfer	Modbus, Packet Filter, Postfix, Teleport
Web/App Servers, Middleware	Nginx
Scripting and Command Line Interfaces	Perl
UI/UX/Wireframing	UX
Other Technical Skills	Akamai Cloud, ALT, Borsh, CPI, IBM Cloud, Metaplex, Minting, Nonce, Partial Signatures, Secret Manager, Serde, Token-2022

WORK EXPERIENCE

Solana Developer, NeuralBond

Duration: 2025

Summary: Developed the NeuralBond app, a decentralized on-chain messaging system in Solana, designed to eliminate spam and enable users to receive paid messages.

Key Responsibilities:

- Built Solana smart contracts in Rust to handle encrypted, decentralized communication;
- Implemented backend functions for secure data flow and payment logic;
- Developed a React-based frontend with AI-assisted features to enhance UX;
- Integrated on-chain message validation and delivery mechanisms.

Technologies: Solana, Rust, Typescript, React, Borsh, Serde.

Solana Developer, Palus Finance

Duration: 2025

Summary: Contributed to the development of a Solana staking platform with advanced on-chain functionalities.

Key Responsibilities:

- Programmed Solana smart contracts in Rust for staking and rewards distribution;
- Developed backend functions to interact with the Solana blockchain;
- Built a React frontend for user interaction with staking features;
- Ensured secure handling of transactions and state management.

Technologies: Solana, Rust, React, Typescript, Metaplex, Token-2022.

Solana Developer, Teleport

Duration: 2024

Summary: Built Solana programs to enable NFT integrations and interactions with Metaplex products.

Key Responsibilities:

- Designed and implemented Solana smart contracts in Rust for NFT operations;
- Integrated backend logic for transaction flows and asset management;
- Worked with Metaplex tools to enable NFT minting and transfers.

Technologies: Solana, Rust, Metaplex, Typescript.

Solana Tech Lead, Community Gaming

Duration: 2022 - 2023

Summary: Led migration of an Ethereum-based product to Solana, including smart contract development and backend infrastructure.

Key Responsibilities:

- Led a 3-person development team, managing scope and delivery;
- Built Solana smart contracts in Rust for gaming logic;
- Designed AWS-based backend to track fund movements in/out of platform;
- Coordinated cross-functional development between blockchain and backend.

Technologies: Solana, Rust, AWS, CPI, Anchor, Typescript.

Project Manager, Halo App

Duration: 2020 - 2021

Summary: Designed and built backend infrastructure for a two-sided temporary work marketplace, including payments, dashboards, and documentation.

Key Responsibilities:

- Developed backend using Google Cloud (Firestore, Cloud Functions in Node.js);
- Integrated Stripe for secure payment processing and fund tracking;
- Created admin dashboards using Retool for analytics and monitoring;
- Documented all technical aspects for due diligence preparation.

Technologies: Node.js, Firebase, Google Cloud, Retool, Stripe.

IBM Watson Architect, Feedback Avatars

Duration: 2019

Summary: Designed and implemented a conversational AI solution on IBM Cloud with Watson Assistant and Postgres-based analytics.

Key Responsibilities:

- Built backend with Node.js cloud functions and PostgreSQL;
- Integrated Watson Assistant for conversational flows;

- Designed dialogue interactions for effective customer guidance;
- Delivered analytics dashboards in Looker for management and billing.

Technologies: IBM Cloud, Watson Assistant, Node.js, PostgreSQL, Looker.

RPi Developer, PVPI

Duration: 2018

Summary: Built a Raspberry Pi MVP for monitoring solar panel performance.

Key Responsibilities:

- Developed Python scripts with MODBUS TCP to query inverters;
- Stored performance data locally in SQLite;
- Built Node.js + HTML web interface for real-time performance graphs.

Technologies: Python, Raspberry Pi, MODBUS TCP, SQLite, Node.js.

Principal Engineer, Via Movil LA

Duration: 2009 - 2014

Summary: Designed and maintained SMS-based subscription services platform, handling millions of daily transactions.

Key Responsibilities:

- Developed multithreaded C#.NET Windows Service for transaction processing;
- Implemented MSSQL queries for payment reconciliation with telecoms;
- Built and optimized REST APIs for external integrations.

Technologies: C#.NET, MSSQL, REST APIs, Windows Services.

iPad Developer, Moenia FM

Duration: 2012

Summary: Built an interactive iPad music app integrating real-time audio processing and visualizations.

Key Responsibilities:

- Developed C++ audio logic with FMOD game audio library;
- Integrated Obj-C interface for iOS;
- Built real-time audio effects and waveform visualizations.

Technologies: C++, Objective-C, FMOD Audio Library, iOS.

Staff Developer, Redwood Technologies

Duration: 2007 - 2009

Summary: Contributed to development of Momentem, a BlackBerry time-tracking app.

Key Responsibilities:

- Worked on backend development in Perl and MySQL;
- Developed client-side features in BlackBerry Java;
- Participated in full development lifecycle, including testing and deployment.

Technologies: Java (BlackBerry), Perl, MySQL

SELECTED OPEN SOURCE PROJECTS

NeuralBond (Rust, React, Solana)

- On-chain messaging app designed to eliminate spam by requiring payment to send messages.
- Implemented Solana smart contracts in Rust, frontend in React, and integrated AI-driven UX features.
- GitHub: https://github.com/sflores/nBond

SCA - Solana Community Assets (Rust, Solana Token-2022)

- Framework for tokenized community engagement on Solana.
- Built Rust programs for creating and distributing assets, with full compatibility for Solana's Token-2022 standard.
- GitHub: https://github.com/sflores/solana-community-assets

NFT Demo dApp (Rust, React, Metaplex)

- Minimal NFT minting and management app showcasing integration with Solana wallets.
- Built using Rust smart contracts and React frontend with Metaplex SDK.
- GitHub: https://github.com/sflores/nft-demo

Rust Bloom Filter (Rust)

- High-performance Bloom filter implementation optimized for probabilistic membership queries.
- Designed for memory efficiency and fast lookups.
- GitHub: https://github.com/sflores/rust-bloom-filter

EDUCATION

UNAM, Mathematics